

WHAT IS CLAIMED IS:

1. An electrode for a fuel cell, comprising a catalyst layer including a proton-conducting substance.
2. An electrode for a fuel cell, comprising:
 - a catalyst particle;
 - a carrier supporting the catalyst particle;
 - a catalyst layer comprising an ion-exchange resin; and
 - a conductive porous substrate supporting the catalyst layer,wherein the catalyst layer includes a proton-conducting substance.
3. The electrode for a fuel cell as claimed in Claim 1 wherein the proton-conducting substance is an acid.
4. The electrode for a fuel cell as claimed in Claim 2 wherein the proton-conducting substance is an acid.
5. The electrode for a fuel cell as claimed in Claim 1 wherein the proton-conducting substance is a solid acid.
6. The electrode for a fuel cell as claimed in Claim 2 wherein the proton-conducting substance is a solid acid.

7. The electrode for a fuel cell as claimed in Claim 3
wherein the proton-conducting substance is a solid acid.

8. The electrode for a fuel cell as claimed in Claim 5
wherein the solid acid has a water of crystallization.

9. The electrode for a fuel cell as claimed in Claim 6
wherein the solid acid has a water of crystallization.

10. The electrode for a fuel cell as claimed in Claim 7
wherein the solid acid has a water of crystallization.

11. The electrode for a fuel cell as claimed in Claim 5
wherein the solid acid is a heteropolyacid.

12. The electrode for a fuel cell as claimed in Claim 6
wherein the solid acid is a heteropolyacid.

13. The electrode for a fuel cell as claimed in Claim 7
wherein the solid acid is a heteropolyacid.

14. The electrode for a fuel cell as claimed in Claim 11
wherein the heteropolyacid is one or more selected from a
group consisting of phosphomolybdic acid, silicomolybdic
acid, phosphotungstic acid, silicotungstic acid,
phosphotungstomolybdic acid, silicotungstomolybdic acid,

phosphovanadomolybdic acid and phosphovanadotungstic acid.

15. The electrode for a fuel cell as claimed in Claim 12 wherein the heteropolyacid is one or more selected from a group consisting of phosphomolybdic acid, silicomolybdic acid, phosphotungstic acid, silicotungstic acid, phosphotungstomolybdic acid, silicotungstomolybdic acid, phosphovanadomolybdic acid and phosphovanadotungstic acid.

16. The electrode for a fuel cell as claimed in Claim 13 wherein the heteropolyacid is one or more selected from a group consisting of phosphomolybdic acid, silicomolybdic acid, phosphotungstic acid, silicotungstic acid, phosphotungstomolybdic acid, silicotungstomolybdic acid, phosphovanadomolybdic acid and phosphovanadotungstic acid.

17. The electrode for a fuel cell as claimed in Claim 1 wherein the proton-conducting substance is a fullerene derivative.

18. The electrode for a fuel cell as claimed in Claim 2 wherein the proton-conducting substance is a fullerene derivative.

19. A fuel cell, comprising:

an electrode for a fuel cell in a fuel-feeding side;

an electrode for a fuel cell in an oxygen-feeding side; and
a solid electrolyte membrane sandwiched between these electrodes,

wherein at least the electrode for a fuel cell in the oxygen-feeding side is the electrode for a fuel cell as claimed in Claim 1.

20. A fuel cell, comprising:

an electrode for a fuel cell in a fuel-feeding side;
an electrode for a fuel cell in an oxygen-feeding side; and
a solid electrolyte membrane sandwiched between these electrodes,

wherein at least the electrode for a fuel cell in the oxygen-feeding side is the electrode for a fuel cell as claimed in Claim 2.